

Claims

1. A method for minimizing a bandwidth required for  
5 the transfers of communication network administration  
information, said information relating to objects  
pertaining to hardware, software or network operation  
elements, catalogued in an administration information  
base (11) and with each of which is associated a formal  
10 language specification, characterized in that it  
comprises steps consisting in:

- generating (48-50) on the basis of said  
specification for each object, a pair of words (121)  
the value of whose first word pertains to an indication  
15 of the object and the value of whose second word  
pertains to an information length of the object;
- constructing (41-47, 51-61) a template comprising  
an ordered set of pairs of words (121-133) generated  
and an identifier (119-120) of said template, making it  
20 possible to subsequently send an ordered string  
(99-113) of information corresponding to said template.

2. The method as claimed in claim 1, characterized in  
that it comprises steps consisting in:

- 25 - traversing (43-46) a tree of the administration  
information base (11) each node of which is associated  
with an object;
- testing (44) at each node whether the object is of  
scalar or table type;
- 30 - constructing (41-47) the template by appending the  
word pair generated to the template if the object is of  
scalar type;
- constructing (51-61) another so-called table  
template if the object is of table type for the objects  
35 of the table.

3. The method as claimed in claim 1 or 2,  
characterized in that it comprises steps consisting in  
constructing (33-37, 19-22) in addition a configuration

template comprising the pairs of words generated for objects with modifiable access.

4. A method of transmitting communication network administration information, said information relating to objects pertaining to hardware, software or network operation elements, catalogued in an administration information base (11) and with each of which is associated a formal language specification, characterized in that it comprises the following steps:
- obtaining a template comprising, on the one hand, an identifier (119-120) of said template and, on the other hand, an ordered set of pairs of words (121-133), each pair of words being generated for one of said objects on the basis of the specification associated with said object and comprising a first word having a value pertaining to an indication of said object and a second word having a value pertaining to an information length of said object;
  - sending an ordered string (99-113) of information corresponding to said template.

5. A signal composed of an ordered string (99-113) of communication network administration information, said information relating to objects pertaining to hardware, software or network operation elements, catalogued in an administration information base (11) and with each of which is associated a formal language specification, said ordered string corresponding to a template, said template comprising, on the one hand, an identifier of said template and, on the other hand, an ordered set of pairs of words (121-133), each pair of words being generated for one of said objects on the basis of the specification associated with said object and comprising a first word having a value pertaining to an indication of said object and a second word having a value pertaining to an information length of said object.

6. A system for minimizing a bandwidth required for the transfers of communication network administration information, said information relating to objects pertaining to hardware, software or network operation elements, catalogued in an administration information base (11) and with each of which is associated a formal language specification, characterized in that it comprises a translator module (10) designed to generate on the basis of said specification for each object, a pair of words the value of whose first word pertains to an indication of the object and the value of whose second word pertains to an information length of the object and to generate a template comprising an ordered set of pairs of words and an identifier, making it possible to subsequently send an ordered string of information corresponding to said template.

7. The system as claimed in claim 6, characterized in that the translator module (10) is designed to traverse a tree of the administration information base (11) each node of which is associated with an object, so as to test at each node whether the object is of scalar or table type and to construct the template by appending the word pair generated to the template if the object is of scalar type or construct another so-called table template if the object is of table type for the objects of the table.

8. The system as claimed in claim 6 or 7, characterized in that the translator module (10) is designed to construct in addition a configuration template comprising the pairs of words generated for objects with modifiable access.

9. The system as claimed in one of claims 6 to 8, characterized in that it comprises a supervisor module (87) designed to collect measurements and an exportation module (88) designed to transmit at least one ticket of data pertaining to these measurements to

a server (92).

10. The system as claimed in claim 9, characterized in that said exportation module (88) is designed to  
5 transmit:

- a data ticket comprising a reference to a template,
- preceded, in the transmission, by the template referenced in said data ticket.

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11. A translator module (10) intended for a system for minimizing a bandwidth required for the transfers of communication network administration information, said information relating to objects pertaining to hardware,  
15 software or network operation elements, catalogued in an administration information base (11) and with each of which is associated a formal language specification, characterized in that said translator module comprises means designed to generate on the basis of said  
20 specification for each object, a pair of words the value of whose first word pertains to an indication of the object and the value of whose second word pertains to an information length of the object and to generate a template comprising an ordered set of pairs of words  
25 and an identifier, making it possible to subsequently send an ordered string of information corresponding to said template.

12. The translator module (10) as claimed in claim 11,  
30 characterized in that it is designed to traverse a tree of the administration information base (11) each node of which is associated with an object, so as to test at each node whether the object is of scalar or table type and to construct the template by appending the word  
35 pair generated to the template if the object is of scalar type or construct another so-called table template if the object is of table type for the objects of the table.

13. The translator module (10) as claimed in claim 11 or 10, characterized in that it is designed to construct in addition a configuration template comprising the pairs of words generated for objects with modifiable access.

14. A supervisor module (87) intended for a system for minimizing a bandwidth required for the transfers of communication network administration information, said information relating to objects pertaining to hardware, software or network operation elements, catalogued in an administration information base (11) and with each of which is associated a formal language specification, characterized in that said supervisor module comprises means designed for collecting measurements on the basis of which said administration information is transmitted.

15. An exportation module (88) intended for a system for minimizing a bandwidth required for the transfers of communication network administration information, said information relating to objects pertaining to hardware, software or network operation elements, catalogued in an administration information base (11) and with each of which is associated a formal language specification, said system comprising on the one hand a translator module (10) designed to generate a template comprising an ordered set of pairs of words and an identifier and on the other hand a supervisor module (87) designed to carry out measurements, characterized in that said exportation module comprises means for transmitting at least one ticket of data pertaining to measurements carried out by said supervisor module (87) to a server (92).

16. The exportation module (88) as claimed in claim 13, characterized in that said exportation module (88) is designed to transmit:

- a data ticket comprising a reference to a

template,

- preceded, in the transmission, by the template referenced in said data ticket.